

## ABSTRACT OF THE DISCLOSURE

A data structure in a computer memory for use in encoding and decoding an N-dimensional subband decomposition of data points includes, after initialization, three  
5 lists: a list of insignificant sets of points (LIS); a list of significant points (LSP) ; and a list of insignificant points (LIP). The LIS is populated with sets, each of the sets being designated by a root node within the N-dimensional subband decomposition and having a corresponding tree structure of points within the N-dimensional subband  
10 decomposition, which tree structure of points is organized as descendants and offspring of the root node but not including the root node, the LIP is populated with points from within the highest designated subband of the N-dimensional subband decomposition, while the LSP is initially empty. The data structure permits encoding and decoding of any N-dimensional data set, i.e., any data set where N is a positive integer. Method and software for employing this data structure are also described.

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